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## LIGHT QUANTITY CONTROL DEVICE

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## ABSTRACT

PURPOSE: To reduce an error at the control of the quantity of a laser beam by changing a laser current by one step and then comparing the quantity of detected light with the delay of a fixed time for converging a transient phenomenon.

CONSTITUTION: The quantity of a beam outputted from a laser 1 is detected by a detecting photodiode 8, arithmetically amplified 13 and then A/D converted in a microprocessor MPU14, the digital signal is compared with a reference value selected out of plural reference values stored in a ROM14-2 in accordance with light quantity switching signals S1-S3 and a signal corresponding to the reference value is outputted from the MPU14. The output signal is D/A converted 15 and supplied to a constant current circuit 20 through a current/voltage converting circuit 18 to control the driving current of the laser 1 through transistors 22, 25, 26, so that quantity of the laser beam is adjusted. If the values of output ports 01-09 of the MPU14 are changed by one bit, the current of the laser 1 is increased like steps, and after the passage of a waiting time for converging the transient variation of driving currents of the converter 15 and amplifiers 19, 21, the quantity of the laser beam is detected.

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